

WHAT IS CLAIMED IS:

1. A substrate processing apparatus comprising:  
processing tanks for processing substrates,  
a transporting track provided along the processing tanks,  
and  
substrate transporting devices moving along the  
transporting track for receiving, delivering and transporting  
the substrates,  
wherein at least two such substrate transporting devices  
are provided on the identical transporting track, and  
the substrate transporting devices are operable in common  
operating ranges across a plurality of processing tanks.
  
2. A substrate processing apparatus comprising:  
processing tanks for processing substrates,  
a transporting track provided along the processing tanks,  
and  
substrate transporting devices moving along the  
transporting track for receiving, delivering and transporting  
the substrates,  
wherein a shuttle for transporting unprocessed substrates  
is provided at a level higher than the substrate transporting  
devices in parallel with the transporting track.

3. A substrate processing apparatus comprising:  
processing tanks for processing substrates,  
a transporting track provided along the processing tanks,  
and

substrate transporting devices moving along the  
transporting track for receiving, delivering and transporting  
the substrates,

wherein at least two such substrate transporting devices  
are provided on the identical transporting track, the substrate  
transporting devices are operable along common operating ranges  
across a plurality of processing tanks, and a shuttle for  
transporting unprocessed substrates are provided at the level  
higher than the substrate transporting devices in parallel with  
the transporting track.

4. A substrate processing apparatus according to Claim 1  
or Claim 3, further comprising a specific tank as fastener washing  
means for washing the substrate fasteners of the substrate  
transporting device for each of the substrate transporting  
devices.

5. A substrate processing apparatus according to Claim 2  
or Claim 3, further comprising a substrate lowering unit for  
receiving the unprocessed substrates from the shuttle and sending  
the unprocessed substrates down to the delivery position of the

substrate transporting device.

6. A substrate processing apparatus according to Claim 2 or Claim 3, further comprising a substrate hoisting unit for moving and transporting the unprocessed substrate upward to the shuttle.

7. A substrate processing apparatus according to Claim 2 or Claim 3, further comprising a processed substrate loading unit for transporting the unprocessed substrates from a position for loading the unprocessed substrates to the substrate hoisting unit.

8. A substrate processing apparatus according to Claim 2 or Claim 3, further comprising a processed substrate unloading unit for receiving the processed substrates from the substrate transporting device and transporting them to the position for unloading the substrates.

9. A substrate transporting device in the substrate processing apparatus for controlling the substrate transporting device based on scheduling data prepared by the scheduler based on processing conditions and transporting conditions, which are entered in advance, wherein in the case in which transportation of the substrates occurs at the plurality of processing tanks simultaneously according to the scheduling data prepared by the scheduler, scheduling data is determined by referencing substrate

transportation sharing conditions.

10. A substrate transporting device in a substrate processing apparatus according to Claim 9, wherein the scheduler selects a substrate transporting device which performs transporting operation for loading and unloading of the substrates to the predetermined processing tank among the plurality of substrate transporting devices in the common operating region.